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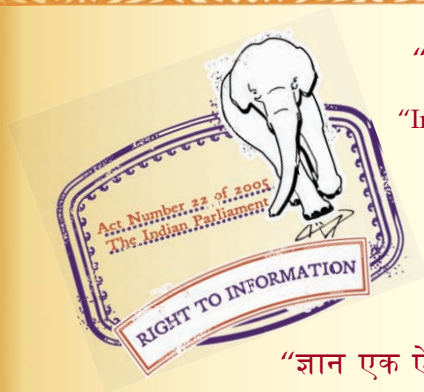
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IS 11730 (1986): Glossary of terms for cocoa, chocolate and its products [FAD 6: Stimulant Foods]



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“Knowledge is such a treasure which cannot be stolen”

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Indian Standard

GLOSSARY OF TERMS FOR COCOA,
CHOCOLATE AND ITS PRODUCTS

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NEW DELHI 110002

Indian Standard

GLOSSARY OF TERMS FOR COCOA, CHOCOLATE AND ITS PRODUCTS

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*Indian Standard*GLOSSARY OF TERMS FOR COCOA,
CHOCOLATE AND ITS PRODUCTS

0. FOREWORD

0.1 This Indian Standard was adopted by the Indian Standards Institution on 15 April 1986, after the draft finalized by the Stimulant Foods Sectional Committee had been approved by the Agricultural and Food Products Division Council.

0.2 This standard is prepared in order to achieve uniformity in the use of terms and their precise interpretation, especially in trade, both at the national and international levels.

1. SCOPE

1.1 This standard covers definition for terms commonly used in the field of cocoa, chocolate and its products.

2. DEFINITIONS

2.1 Acetylated Waxy Maize Starch — It is pregelatinized starch and is gel-resistant to freezing and thawing. It is used where moisture is a restriction. Dissolves readily in cold water even in high concentrations to form a clear, smooth, short texture.

2.2 Acid Modified Thin Boiling Starches — Modified starch available with varying fluidity and nature of application in confectionery industry. Used in production of gums and gellies, low *pH* processes, enable high solids production and have good depositing capability, produce gels of high rigidity, clarity and short texture.

2.3 Acid Value — The number of milligrams of potassium hydroxide required to neutralize the free fatty acid of 1 g of oil or fat, normally expressed as percentage of major fatty acid present in the fat. The free fatty acids, if calculated as oleic acid as it often is, is half the acid value.

2.4 Aflatoxin — A toxin formed by the action of the mould, *Aspergillus flavus* or *Aspergillus parasiticus* and *Penicillium puberulum* on cocoa beans or peanuts, etc.

2.5 Aldrin — Insecticide spray used on cocoa plantations.

2.6 Alkalization — Also termed dutching. Alkalizing treatment given to cocoa beans, liquor, nib or powder with solutions or suspensions of alkali, usually in the form of potassium or sodium carbonate, in order to improve colour and flavour of cocoa.

2.7 Amazonian Cacao — Cocoa beans of Brazil, West Africa and Ecuador, coming from the basin of the river Amazon.

2.8 Amorphous Sugar — A non-crystalline high boiled sugar.

2.9 Antibloom Additive — Antibloom substance used in confectionery coating.

2.10 Anthracnose — A fungal disease, caused by *Collectotrichum* species of cocoa pods.

2.11 Alkalized Cocoa — Cocoa powder obtained after alkali treatment of cocoa nibs or cocoa mass or cocoa powder.

2.12 Antibloom Fats — These fats when added to chocolate greatly inhibit bloom formation. Example, butter oil (anhydrated cow butter), biscuitine (arachis oil + hardened fat).

2.13 Antifoam Agents — Substances that have a negative (destructive) effect on aeration (present mainly in flavouring components of confectionery).

2.14 Antioxidant — These are natural or synthetic substances that delay the onset of oxidative rancidity. For example octyl gallate, dodecyl gallate, BHA, BHT, propyl gallate.

2.15 Aroma — Volatile part of a flavour.

2.16 Astringent Beans — Poorly fermented cocoa beans, with too high a portion of purple beans.

2.17 Balling — Formation, when sieving a powder, of balls which cannot pass through the mesh.

2.18 Bar Forming — A method of production of confectionery bars by extrusion process whereby a confection is forced into a rotating teflon coated channelled roller which forms 'ropes'. These ropes are cut into bars.

2.19 Base Beans — Synonym bulk beans.

2.20 Basic Fondant — Sugar confectionery product which contains mixed sugars held in two phases. Solid phase dispersed in a high sugar solid syrup.

2.21 Baume Scale — A scale, devised for convenient hydrometer reading which can be related to concentration of sugar solution.

2.22 Bark Chocolate — Synonym chocolate flakes. Chocolate pastes coming from high speed refiner rollers in flake form is compressed into a bar form.

2.23 Bee Wax — Wax secreted by bees is melted, refined and bleached. Bees wax is used as a polish and also as a constituent of releasing agents.

2.24 Bitter Cocoa Beans — Beans with excessive amounts of tannins and prunines and impart bitter taste.

2.25 Black Pod — A fungal disease of cocoa pod caused by *Phytophthora* species.

2.26 Blackshire Cocoa — Synonym; black cocoa. Type of alkalized cocoa with about 8.5 pH, used mainly for pigmentation of chocolate or coatings.

2.27 Blanching — Subject fruit, peel, nuts to hot damp conditions (scalding with hot water or steam) in order to achieve easy peeling, breaking down of tissues for improved sugar intake and destruction of enzymes.

2.28 Bleeding — (Sweat) Appearance of droplet of moisture or sugar syrup on the surface of a confection.

2.29 Blending — Refers to the mixing of 'fine grade' cocoa with 'bulk grade' to achieve required flavour and colour in finished products.

2.30 Block Juice — A water extract prepared from the liquorice root (*Glycyrrhiza*) and is used as a flavouring in sugar confectionery.

2.31 Block Milk — A form of solid sweetened condensed milk with moisture content reduced to 8.9 percent.

2.32 Bloom — A detrimental defect in the appearance of chocolate, arising from the fat in chocolate (fat bloom) or the action of moisture on the sugar ingredients of chocolate (sugar bloom). See under fat bloom and sugar bloom.

2.33 Bloom (Strength) — The strength of jelly produced by a given gelatin is classified by a bloom rating, as determined by a bloom gelometer.

2.34 Blow (Souffle) — A stage in boiling of sugar syrup, identified by setting of bubbles on a wet spatula dipped in the syrup and is blown (approx 110°C).

2.35 Blue Value — Test performed for the detection of shell fat in cocoa butter.

2.36 Bob Syrup — Syrup used in the preparations of fondants by addition of basic fondant to this syrup.

- 2.37 Boiling Starches** — A modified maize starch which has been softened by treatment with dilute acid solutions increasing their fluidity.
- 2.38 Boiled Sweets** — Sugar confectionery manufactured by cooling of super-saturated solutions of sugar into amorphous solids.
- 2.39 Bon Bon, Fourres** — Confectionery with a centre of nutpaste, marzipan, preserved fruit or truffle coated with fondant.
- 2.40 Bon Bons Soft Centre** — Sugar confectionery having a soft sugar core in a high boiled casing.
- 2.41 Boot Laces** — A circular rod shaped liquorice novelty/confection.
- 2.42 Borneo Tallow** — Commercially known as illepe butter, extracted from seeds of *Shorea* species (*Bassia longifolia*), bears significant resemblance to cocoa butter.
- 2.43 Bottle Test** — A test conducted to ensure odour free quality of wrappings for chocolate and confectionery.
- 2.44 Boucher Unit** — A unit used to describe gel strength.
- 2.45 Bourbonal** — Synonym: Ethyl Vanillin, Vanillose
$$\text{C}_6\text{H}_5\text{OH}.\text{OC}_2\text{H}_5.\text{CHO}$$
 or
Ethyl Protocatechuic Aldehyde.
- 2.46 Brake** — Twin adjustable rollers used to reduce the thickness of confectionery products.
- 2.47 Brix Scale** — A scale with the same purpose as the Baume (above).
- 2.48 Broken Bean** — A bean of which a fragment is missing. The missing part being equivalent to less than half the bean.
- 2.49 Brown Sugar** — Sucrose with high reducing sugar content (about 4 percent) and 92 percent purity. It is sometimes made by adding caramelized sugar to white sugar.
- 2.50 Brown Pod** — A diplodia pod rot caused by *Botryodiplodia theaeomae*.
- 2.51 Browning-Non-Enzymic** — Browning of food products due to thermal degradation, sugar and the maillard reaction.
- 2.52 Bubble Gum** — Chewing gum that produces bubbles on chewing.
- 2.53 Buffered Pectin** — Pectin with added buffer salts to reduce its active acidity.
- 2.54 Buffer Salt** — Salts used to minimize small changes in acidity.

2.55 Butyl Rubber — Butadiene styrene rubber, isobutyleneisoprene copolymer, used in gum base.

2.56 Bulk Cocoas — Major portion of the cocoa beans taken for chocolate manufacture, and to these 'flavor Beans' are added during blending.

2.57 Cacao — Generally means cocoa beans, but also refers to the tree, and beans at the fermenting state.

2.58 Cachous — A type of lozenge confectionery.

2.59 Canauba Wax — A wax used to polish confectionery.

2.60 Candied Fruit — Sugar confections in which water from the raw material has been exchanged for a high sugar content syrup.

2.61 Capping — A defect in tablet making, the top of the tablet splits away from its side at the point of join.

2.62 Capsids — Pest causing spoilage of cocoa pods and Chupans (*Sahebergella singulari*).

2.63 Caramel (in boiling) — A stage reached during the boiling of sugar (Brown brittle sheet forms).

2.64 Caramelization (in milk) — Product of Maillard reaction between milk protein and reducing sugars when milk solids are heated with inverted sugars in presence of water.

2.65 Carboxy-Methyl Cellulose — A cellulose ester, added to slimming chocolate, to increase food bulk with no parallel increase in food value.

2.66 Carageenan — A gelling agent obtained from *Chondrus crispus*, a seaweed.

2.67 Casson Viscosity — A method of measuring viscosity of chocolate.

2.68 Cauliflorous — Term for plants that have flower and fruits on the older leafless parts of the trunk and branches, as in the case of cocoa tree.

2.69 Chellies — An artificial cherry-confectionery.

2.70 Chocolate Syrup (Spread) — Syrup of cocoa powder and approximately 75 percent sugar solids including invert sugar, sugar and glucose syrup.

2.71 Chupons — Part of the shoot of cocoa tree.

2.72 Coberine — A cocoa butter equivalent — a fractionated palm oil.

2.73 Cocoa Beans — The seed of the cocoa tree (*Theobroma cacao* Linnaeus) which has been fermented and dried.

- 2.74 Cocoa Butter** — Fat obtained by expression from the nibs of the beans of *Theobroma Cacao L.* Synonym—Prime pressed cocoa butter.
- 2.75 Cocoa Butter Equivalent** — Fat which has all the physical and chemical properties of cocoa butter but has its constituent glycerides derived from sources other than cocoa beans.
- 2.76 Cocoa Butter Substitute** — Fat which bears no resemblance to cocoa butter but which can be used with some degree of success when mixed in small amounts with cocoa butter or chocolate.
- 2.77 Cocoa Cake**—Cake obtained by hydraulic pressing (partial defatting) of cocoa mass.
- 2.78 Cocoa Fat** — Fat other than cocoa butter obtained from cocoa beans or part of cocoa beans.
- 2.79 Cocoa Fibre** — Cellulose fibre present in the shell of cocoa beans.
- 2.80 Cocoa Fines (Dust)** — Fraction of small nibs obtained along with inseparable small shell during winnowing of decorticated cocoa beans.
- 2.81 Cocoa Mass** — Also termed cocoa liquor. It is the product obtained by mechanical disintegration of cocoa nib, its constituents remaining the same. Synonym: Cocoa paste.
- 2.82 Cocoa Moth** — A cocoa pod pest (*Acrocercops cramella*).
- 2.83 Cocoa Nib** — Shell free cotyledons of fermented dry cocoa beans.
- 2.84 Cocoa Pod** — Fruit of the cocoa tree, bearing cocoa beans.
- 2.85 Cocoa Pod Borer** — A cocoa pod pest (*Charcoma stictographa*).
- 2.86 Cocoa Powder** — Finely ground particles obtained from mechanical disintegration of cocoa press cake containing not less than 20 percent cocoa butter on dry basis, in case of high fat cocoa powder, and not less than 10 percent cocoa butter in case of low fat cocoa powder.
- 2.87 Cocoa Shell** — Outer cover of the cocoa bean (It covers cotyledons or nibs).
- 2.88 Cocoa Substitute** — Partial or total cocoa powder substitute for manufacturing purpose, such as carob powder and processed defatted wheat germ.
- 2.89 Cocoa Syrup (Spread)** — Syrup of cocoa powder and approximately 75 percent sugar solids including invert sugar and glucose syrup.
- 2.90 Cocoa Thrip** — An insect that feeds on leaves of the cocoa tree.
- 2.91 Couverture** — Chocolate suitable for covering purpose. Synonym: Compounded chocolate and coating chocolate.

2.92 Couverture, Milk — Chocolate coating produced using milk, cocoa butter and/or fats of vegetable origin, and made suitable for covering purpose.

2.93 Couverture, Plain — Chocolate produced using cocoa-butter and/or fats of vegetable origin, and made suitable for covering purpose.

2.94 Conching — Process of flavour development with removal of undesirable volatile acidic components, and improvement in homogeneity and rheological properties of chocolate mix.

2.95 Contraction — An important factor in demoulding, resulting due to the specific property of cocoa butter to contract or expand, during solidification depending upon the cooling curve.

2.96 Concreting — Dampening or caking of sugar due to high humidity.

2.97 Confectioner's Glucose — A defunct term for glucose syrup.

2.98 Cozeen — A solution of zein (corn protein) with acetylated glycerides.

2.99 Crack (Boiling) — A stage in boiling sugar syrup (formation of sheet).

2.100 Cracking — A defect in sweet due to high boiling temperature or use of cold dies, or due to the action of yeasts.

2.101 Cream of Tartar — Acid potassium tartarate, potassium hydrogen tartarate, is used to bring in batch inversion during the manufacture of high boiler sweets.

2.102 Cream Paste — A blended, flavoured sugar and fat mix containing both a solid and liquid phase.

2.103 Criollo Beans — A cocoa bean type, most flavour grade beans. (Colour—cream—pale purple, thin skin, oval and flat shape).

2.104 Cross-linked Starches — Modified starches with build up resistance to change during boiling in low pH media or heating under pressure, starch suspensions are treated with reagents such as phosphorous oxychloride or acetic anhydride to cross-link different molecules of starch.

2.105 Crusted Liqueur — A type of centre for liqueur chocolate in which the liqueur syrup centre is held in a sugar shell that is then coated with chocolate.

2.106 Crustless Liqueur — A type of centre for liqueur chocolate where liqueur syrup is held in a preformed chocolate shell.

2.107 Crystallization — Process of formation of crystals in a supersaturated solution.

2.108 Crystallized Fruit — Synonym for candied fruit.

2.109 Cupping — A defect exhibited by faulty creams, manifested by the sinking in, at the centre of the base, of the cream.

2.110 Cut Test — A process employed to assess the quality of raw fermented cocoa beans by exposing the surfaces of cotyledons, cutting the beans lengthwise.

2.111 Cyclamates — Artificial sweeteners including cyclamic acid and sodium and calcium cyclamate.

2.112 Damping — Synonym: Concreting/caking of sugar.

2.113 Defective Bean — A bean which is insect damaged, germinated or flat.

2.114 Deformation — A fault in agar jellies due to low total solids or too hot packaging.

2.115 Deoderized Cocoa Butter — Degummed and steam/vacuum processed cocoa butter.

2.116 Dental Caries — Tooth decay.

2.117 Dextrose Equivalent — (D.E.) Percentage of reducing sugar on a dry basis, calculated as dextrose, that gives the same analytical result as is given by the combined reducing sugar in the glucose syrup.

2.118 Dilatation — Defined as the isothermal expansion due to the change of state from solid to liquid, of a fat which has previously been solidified under carefully prescribed condition.

2.119 Diabetic Chocolate — Chocolate with sugar content replaced by an acceptable permitted sweetener.

2.120 DM Value — A measure of the degree of esterification of pectin.

2.121 Dietetic Chocolates — Low calorie chocolates including diabetic chocolates, fructose chocolate, slimming chocolates, etc.

2.122 Doctor (Sugar) — A sugar ingredient which suppresses the crystallization of sucrose by raising total saturation concentration.

2.123 Dragees — Sweets which consist of a smooth or pearled covering, made in the panning process with sugar and/or chocolate, and a centre (filling). The centres use liquid, soft or solid fillings.

2.124 Drop — Variety of high-boiled sweet produced on a drop roller.

2.125 Drinking Cocoa — Cocoa powder with added salt and permitted flavouring.

- 2.126 Drinking Chocolate** — A mixture of cocoa and icing sugar with permitted flavouring.
- 2.127 Dry Conching** — Conching without the addition of extra cocoa butter.
- 2.128 Dulce de Leche** — A milk-based chewing sweet.
- 2.129 Dutching** — A synonym for alkalization.
- 2.130 Easter Eggs** — A hollow moulded chocolate of egg shape.
- 2.131 Engrossing** — In panning, the build up of a sugar coating on centres.
- 2.132 Enrobing** — Covering confections with chocolates.
- 2.133 Equilibrium Relative Humidity** — Value relating vapour pressure exerted by confections to the relative humidity of surround air.
- 2.134 Essence Cocoa** — Outdated commercial name for cocoa powder.
- 2.135 Euonymized Cocoa** — Outdated commercial name for cocoa powder.
- 2.136 Extenders** — Surface-active agents.
- 2.137 Expeller Cocoa Butter** — Fat obtained by the expeller process from cocoa nibs, cocoa mass, cocoa cake, singly or in combination (It may contain significant percentage of shell fat).
- 2.138 Fats** — Fats are the esters of glycerol with higher fatty acids.
- 2.139 Fat Bloom** — Formation of a greyish fat coating on the surface of chocolate caused by inadequate processing, improper storage or incorrect formulation of the constituent fats.
- 2.140 Fat Reduced Cocoa Cake** — Cocoa press cake containing at least 10 percent cocoa butter on dry basis.
- 2.141 Feather** — A stage in boiling of sugar syrup, identified by formation of feathery hard stands on a wet spatula that is dipped in the syrup and is returned to cold water (approx 111°C).
- 2.142 Fermented Beans** — A bean which has been thoroughly fermented and has a light to dark brown colour showing no blue or purple in the cross-section and having cotyledons which are easily separated.
- 2.143 Fine Grade (flavour grade)** — Beans that are added to the bulk cocoa to impart required flavour and colour in chocolate.
- 2.144 Flats (Shrivelled Beans)** — Immature or underdeveloped beans with little of useful cotyledons. A bean of which the two cotyledons are so thin that it is not possible to obtain a cotyledon surface by cutting.

2.145 Flavour — Characteristic flavour as a result of fermentation and roasting of cocoa beans.

2.146 Flow — Refers to the general flow behaviour of chocolate mass.

2.147 Foam — Beaten mixture of a whipping agent in water.

2.148 Fondant — Sugar confectionery product containing sugar crystal dispersed in a high sugar solid syrup.

2.149 Forestero — A cocoa bean type, forming mainly the bulk cocoa.

2.150 Fourres — Synonym: Bon-Bon.

2.151 Frappe — Whipped mixture of foaming agent in sugar syrup.

2.152 Fractionation — Process of removal of fractions with different melting points from a fat.

2.153 Fragment — A piece of bean equivalent to or less than half the original bean.

2.154 Fudge — A sweetment or a confection having unplanned crystallization of sugar.

2.155 Gelling — To form a jelly.

2.156 Gelatine — A gelling agent derived from the hides or bone of animals.

2.157 Gelling Agent — A material which promotes gelling.

2.158 Gelatinization — Process whereby granules of starch swell when a starch-water mixture is heated beyond a critical temperature.

2.159 Germ — The part of cocoa seed which on germination forms the root.

2.160 Germinated Bean — A bean, the shell of which has been pierced, slit or broken by the growth of the seed germ.

2.161 Gliding — Silver coating panned centres.

2.162 Glace Fruit — Candied fruit.

2.163 Glass — An amorphous rigid liquid arising when cooling takes place so rapidly that crystallization does not occur.

2.164 Glazing — To coat a confection with a solution which, on drying, produces a high gloss.

2.165 Glu — A corruption of term 'Glucose syrup'.

2.166 Glucose Syrup—Purified concentrated aqueous solution of nutritive saccharides obtained from edible starch and having a dextrose equivalent of 20 or more.

2.167 Grade Strength—Number of grams of sugar from which one gram of pectin will produce a gel of standard firmness when tested under standard conditions of acidity and soluble solids contents.

2.168 Grading of Beans—Refers to a set of characteristics like size, shape and fermentation of which the beans are categorized.

2.169 Graining—Unplanned crystallization of sugar in a confection.

2.170 Grape Sugar—Synonym: Dextrose, D-glucose.

2.171 Granulation—A method of producing confectionery tablets.

2.172 Greasiness—A greasy appearance due to bad tempering.

2.173 Grubby—Resultant of infestation by insects and mites (refer insect damaged beans). Insects mainly infesting are *Ephestia cautella*, *Araecerus fasciculatus*, *Lasioerma serricone*.

2.174 Hard Crack—A stage in boiling of sugar syrup, identified by rapid formation of sheet on wet spatula that is dipped in the syrup and is returned to cold water (approx 143°C).

2.175 Hard Panning—Process of panning, where regularly a high sucrose concentration syrup is added to the centre.

2.176 'Hammy' Cocoa—Resultant of bad fermentation.

2.177 High Fat Cocoa—Cocoa powder with a minimum of 20 percent cocoa butter content on moisture free basis.

2.178 Homeopaethic Cocoa—An outdated name under which cocoa powder was sold.

2.179 Hydrolytic Rancidity—Causes soapy flavour, part of the fatty acid chains present in a fat split away due to hydrolysis.

2.180 Insect Damaged Beans—A bean, the internal part of which contain insects at any stage of their development, or damage caused by insects, visible to the naked eyes.

2.181 Instant Drinking Chocolate—Made with cocoa powder (20 percent fat) and graded crystalline sugar with the addition of lecithin.

2.182 Instant Cocoa—Cocoa powder to which an edible wetting agent is added to get proper dispersion.

- 2.183 Inversion**— Breakdown of sucrose into dextrose and laevulose.
- 2.184 Invert Sugar**— Mixture of approximately equal parts of dextrose and laevulose.
- 2.185 Invertase**— An enzyme employed to bring about inversion of sugar syrup.
- 2.186 Iso Electric Point**— Critical pH , above or below which a solution changes its electric charge.
- 2.187 Italian Cream**— Synonym: Fudge.
- 2.188 Jam**— Fruit preserves with up to 69-70 percent soluble solids.
- 2.189 Jam, Confectioners**— Jams used as a centre, with up to 75-78 percent soluble solids.
- 2.190 Jellies**— Confectionery obtained by use of water binding gelling agents.
- 2.191 Jorquette**— Part of the cocoa tree shoot.
- 2.192 Kettle**— Steam jacketed warming or boiling pan.
- 2.193 Kirshner Value**— A measure of water soluble steam volatile fatty acids that form water soluble silver salts.
- 2.194 Labile Zone**— A zone in a supersaturated solution where spontaneous crystallization takes place.
- 2.195 Large Ball/Large Pearl/Large Thread**— Stages in boiling of sugar syrup. Large ball refers to the stage when hard ball of syrup forms on a wet spatula that is dipped in the syrup and returned to cold water (approx $128^{\circ}C$). Large pearl refers to the stage when large droplets of syrup form on wet spatula that is dipped in syrup and returned to cold water (approx $106^{\circ}C$). Large thread refers to the stage when a number of strong strands of syrup form between fingers wetted with water and then syrup (approx $104^{\circ}C$).
- 2.196 Lauric Fats**— Fats containing lauric acid (for example, coconut oil, palm kernel oil, butter fat).
- 2.197 Leaching (of Sugars)**— Transfer of sugar or starch from one confectionery type to another.
- 2.198 Leakage**— Seepage of syrup from a coated confection.
- 2.199 Light Crack**— A stage in boiling of sugar syrup, identified by formation of thin sheet on a wet spatula that is dipped in the syrup and returned to cold water (approx $129^{\circ}C$).

- 2.200 Liquid Sugar** — Commercial mixture of sugar offered in syrup form.
- 2.201 Liquorice** — Extract prepared from the root of *Glycyrrhiza* and is used as a flavouring in sugar confectionery.
- 2.202 Liquorice Allsorts**—Liquorice and cream paste confections.
- 2.203 Low Fat Cocoa**—Cocoa powder with a minimum of 10 percent cocoa butter content on moisture free basis, synonym: Reduced fat cocoa.
- 2.204 Machete** — Harvesting implement for pods.
- 2.205 Malt Extract**—A sweetening ingredient with characteristic flavour. It is a viscous product obtained by evaporation of water extract prepared by digesting with water sound malted grains of cereals, as barley, wheat and millets.
- 2.206 Malto Dextrin**—Hydrolyzed cereal solids, free flowing, high soluble, white powders principally composed of higher saccharides (hexa-saccharides and above). These partially replace up to 15 percent gelatine and 25 percent egg albumen in marshmallow manufacture.
- 2.207 Manufacturing Cocoa** — Cocoa powder used as an ingredient for cakes, icecream, biscuits or coatings.
- 2.208 Maple Sugar**—Concentrated sugar syrup/prepared from the secretion of the bark of sugar mapple tree (*Acer saccharum*).
- 2.209 Marzipan** — Two parts by weight of ground almonds to one of sugar ground into a paste.
- 2.210 Mass, Cocoa**—Product obtained by mechanical disintegration of cocoa nibs.
- 2.211 Massecuite**—Mixture of boiled syrup and sugar crystals.
- 2.212 Milk Chocolate**—A homogeneous product obtained from cocoa nibs, cocoa mass, cocoa butter, sugar and milk solids (permitted flavouring and emulsifier).
- 2.213 Milk Crumb**—A homogeneous mixture of sugar, milk solids and cocoa mass which has been adequately dried.
- 2.214 Mealy Pod** — A fungus that attacks cocoa tree (*Trachysphaera fructigens*).
- 2.215 Medium Crack**—A stage in boiling of sugar syrup, identified by formation of a slightly brittle sheet on a wet spatula that is dipped in the syrup and returned to cold water (approx 133°C).

2.216 Metastable Zone—A crystallization zone of supersaturated solution, where no spontaneous crystallization takes place, but crystal growth can occur.

2.217 Mid Crop — Cocoa harvest of May-June, maincrop being harvested from October to January.

2.218 Mogul — Machine for depositing confectionery mixtures into impressions formed in starch or in rubber mats.

2.219 Monoclinic Crystals — One of the seven basic forms of crystals, and sucrose occur in these forms.

2.220 Monimorium Pharanoi — Pharoah's ant, a raddish brown tiny ant.

2.221 Montelimart — A nougat preparation principally from honey, whipped eggs, nut and preserved fruits.

2.222 Monilia Disease — A fungal disease of cocoa tree, caused by *Monilia roleri*.

2.223 Mouldy Bean — A bean, on the internal part of which mould is visible to the naked eye.

2.224 Musty Bean — Synonym: Moldy bean.

2.225 Negro Kisses — A marshmellow preparation.

2.226 Newtonian Liquid — Liquids with their viscosity remaining constant irrespective of rate of shear.

2.227 Nonpareils — A dragee preparation.

2.228 Nougat — A high boiled syrup, containing fat, to which is added a frappe (frappe manufacture using egg albumen, gelatine, hyfoama, soyprotein or in combination with starch, gum-arabic or agar).

2.229 Off Flavoured Beans — Flavour defect (a) sour milk; over fermented bean, (b) smoky, contaminated by smoke during drying and (c) Ham like, too low degree of temperature during peak fermentation.

2.230 Oiled Starch — Modified maize starch, impregnated with about 0.05-0.1 percent of purified mineral oil.

2.231 Oleoresins — Essential flavouring substances extracted from spices by means of a pure solvent.

2.232 'On the Run' — Change of a boiled sugar mass from the plastic to the glassy state.

2.233 Over Fermented Beans — Beans with either dark brown or pale yellow colour.

2.234 Oxidative Rancidity — Off flavours in fats due to oxygen take up from the atmosphere by the unsaturated fatty acid present in the fat.

2.235 Oxidised Starch — A modified starch used to produce gels with increased clarity.

2.236 Panning — A production method, which employs a rotating pan in which the centres rotate and cascade over one another. Chocolate is applied by hand or spray during rotation and is set by cooling air. In this manner layers of chocolate are build up around the centre.

2.237 Partly Brown Partly Purple — A bean showing any blue, purple or violet colour on the exposed surface whether suffused or a patch.

2.238 Pastilles — A soft gum confectionery.

2.239 Pasting Curve — Curves plotted showing viscosity changed in starch pastes during cooking.

2.240 Pearl — A stage reached during boiling of sugar syrup.

2.241 Pearling — A process of sugar panning where a syrup with a small addition of gumarabic is allowed to drip in a controlled flow over the confectionery pieces revolving in a pan until the required size is obtained.

2.242 Persipan — Preparation from mixed sugars and blanched debittered apricot and peach kernels (Marzipan prepared from almond substitutes).

2.243 Plain Chocolate — A homogeneous product obtained by an adequate process from a mixture of one or more cocoa nib, cocoa mass, cocoa press cake, cocoa powder, including fat reduced cocoa cake, with sugar, with or without the addition of cocoa butter and other permitted substances.

2.244 Plastic Sugar — Boiled and cooked sugar syrup to soft and mobile plastic state.

2.245 Podginess — Condition of chocolate when it resists flow and show a tendency to retain its shape when stationary.

2.246 Polenske Value — A measure of the water insoluble steam volatile fatty acid present in a fat.

2.247 Pralines — Roasted nut pastes refined with sugar. These act as chocolate centres in truffles.

2.248 Pregelatinized Starch — Starches cooked and dried on heated rollers. These rapidly absorb moisture and make a paste.

2.249 Pulled Sugar — Product obtained by cooling boiled sugar mass to plastic state then stretching again until it becomes translucent and develops a sheen.

- 2.250 Pulverizing** — Process of dry grinding of cocoa cake to form cocoa powder.
- 2.251 Purple Bean** — A bean showing completely blue, purple or violet colour over the whole exposed surface.
- 2.252 Refined Cocoa Butter** — Filtered/centrifuged cocoa butter that has been degummed and deodourized and further treated with a lye to neutralize and/or bleached with bentoxide or charcoal.
- 2.253 Reversion** — Fat redeveloping the natural flavour of the base product which had been removed during refining.
- 2.254 Rework** — Reprocessed chocolate bars and confectionery.
- 2.255 Refining** — Mechanical disintegration of chocolate after mixing to achieve desired particle size.
- 2.256 Rich** — Refers to dark desirable colour of chocolate.
- 2.257 Roasting** — Process of heating cocoa beans or cocoa nibs to develop specific chocolate aroma and removal of moisture and undesirable volatiles.
- 2.258 Rope** — Rod of cooked sugar syrup produced on a forming machine.
- 2.259 Rubbed Chocolate** — Chocolate assortment of bad shapes or appearance (cracked, deshaped, bloomed).
- 2.260 Sag Value** — A measure of gelling strength of pectin.
- 2.261 Sanding** — To coat confections with icing sugar or fine sugar syrups.
- 2.262 Seeding** — Addition of a small amount of crystals to induce crystallization.
- 2.263 Sequestering Agent** — Substances that reduce catalytic effect of oxidative rancidity accelerating metals.
- 2.264 Scrap** — Low grade sugar.
- 2.265 Shell** — The outer cover of cocoa beans.
- 2.266 Slaty Bean** — A bean which shows a slaty colour over half or more of the surface exposed and having a cheesy texture.
- 2.267 Shrivelled Bean** — Synonym: Flat bean.
- 2.268 Slugging** — A process used in confectionery making free flowing granules.
- 2.269 Slurrying** — A process in manufacture of liquorice.

2.270 Small Ball — A stage in boiling of sugar syrup, identified by formation of a soft ball of syrup on a wet spatula that is dipped in syrup and returned to cold water (approx 116°C).

2.271 Small Pearls — A stage in boiling of sugar syrup identified by formation of small droplets on a wet spatula that is dipped in the syrup and returned to cold water (approx 105°C).

2.272 Smooth — Relates to texture and mouthfeel (negative term-gritty).

2.273 Smoky Bean — A bean which has a smoky smell or taste or which shows signs of contamination by smoke .

2.274 Snap — Breaking characteristics of chocolate and confectionery.

2.275 'Soapy' Rancidity — Synonym: Hydrolytic rancidity.

2.276 Soft Centre Boiling — Confections made by feeding a liquid centre composition into a plastic boiled sugar mass.

2.277 Soft Centre Panning — Coating of soft centres by successive layer of sugar/glucose syrup.

2.278 Solvent Extracted Cocoa Butter — This is obtained by extraction from cocoa beans, cocoa nibs, cocoa mass, cocoa press cake, expeller press cake or cocoa dust, by use of permitted food grade solvent. It is centrifuged, degummed and deodourized (It may contain significant percentage of shell fat).

2.279 Souffle — Stage in boiling sugar syrup.

2.280 Spermaceti — Wax obtained from head of sperm whale.

2.281 'Straw' Flavour — Off flavour caused by oil component of soya lecithin.

2.282 Streusel — Chocolate vermicilli.

2.283 Sulphite Papers — Papers prepared from chemical treatment of wood pulps (usually from a mixture of long fibre soft woods and short fibre hard woods), are used for food wrapping.

2.284 Sugar Bloom — Development of fine sugar clusters on the surface of chocolate.

2.285 Superfine Cocoa — Finely ground cocoa powder with high solubility.

2.286 Syneresis — A defect in gels observed as exuding of syrup (sweat) from the gel after a storage period, due to excessive inversion, or high percentage of reducing sugars.

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2.287 Synergistic Action — Combined action of more than one primary antioxidants.

2.288 Tailing — A problem encountered in moulding or enrobing of chocolates.

2.289 Tempering — To process chocolate so that any crystallization of fat occurs in a stable modification.

2.290 Theobroma Cocoa — Botanical name of the tree from which cocoa beans are obtained.

2.291 Theobromine — An alkaloid found in the cocoa bean.

2.292 Thickening — Undesirable change in flow characteristic of chocolate due to insufficient or excess lecithin, or absorption of moisture.

2.293 Thin Boiling Starches — Boiling starches with fluidity numbers ranging 65-70.

2.294 Thixotropic Effect — Thickening and setting of fluid material held without being mixed.

2.295 Thread — A stage in boiling of sugar syrup, identified by formation of the strands of syrup between fingers wetted with water and the syrup (approx 103°C).

2.296 Toffee — Confection produced by blending glucose syrup, refined and or brown sugar, milk solids, fats and salt and concentrated to a high total solid content.

2.297 Treacle (Black) — Partially inverted filtered molasses, a thick black viscous liquid, used as a special flavouring.

2.298 Trinitario Beans — Hybrid cross of criollo and forastero beans.

2.299 Truffle — A praline coated with chocolate, cocoa or vermicilli.

2.300 Turkish Delight — Confection made from honey and flour and flavoured with rose otto. The syrup is either cooled and set and dusted with fine sugar, or poured into starch and after removal covered with milk chocolate.

2.301 Unfermented Cocoa Bean — This includes slaty beans directly from the pod.

2.302 Underfermented Cocoa Beans — This includes partly brown partly purple and fully purple beans.

2.303 Velvety Bean — A diseased bean.

2.304 Vermicilli — A chocolate product used for coating truffles manufactured by extruding chocolate through a perforated plate.

2.305 Viscous Film — A regenerated cellulose film.

2.306 Warty Pod — A diseased brown pod.

2.307 Water Activity — Synonym: Equilibrium relative humidity/100. It is the ratio of the vapour pressure of water in the food product to the vapour pressure of free water at the same temperature.

2.308 Weeping — Synonym: 'Sweating'.

2.309 Wetting — Charge of syrup added during sugar panning.

2.310 Wet Crystallization — A process by which a tight shell of sugar crystals is developed around the confection to act as a moisture barrier, on products that are sold uncovered or which dry out.

2.311 Wet Granulation — A method used to manufacture confectionery tablets.

2.312 Wet Milling — A method for separating the maize kernels into four main components; starch, gluten, fibre and germ.

2.313 White Chocolate — Milk chocolate prepared from cocoa butter, sugar, milk solids, permitted flavourings and emulsifiers.

2.314 Winnower — A machine which separates nibs from shell and germ by the combined action of sieves and air elutriation by taking advantage of the difference in density of the shell and nib.

2.315 Witches Broom — A fungal disease of cocoa tree caused by *Marasimus perniciosus*.

2.316 Yield — Refers to the yield of dry beans and is expressed as kg/ha.

2.317 Yield Value — A non-Newtonian product requires a minimum shear stress to be exerted before the liquid commences to move. The point which the stress is just exceeded is known as the yield value.

2.318 Zein — A prolamine, obtained by settling and solvent extraction of the endosperm of maize. It is used in association with shellac as a confectionery glaze.

INTERNATIONAL SYSTEM OF UNITS (SI UNITS)

Base Units

<i>Quantity</i>	<i>Unit</i>	<i>Symbol</i>
Length	metre	m
Mass	kilogram	kg
Time	second	s
Electric current	ampere	A
Thermodynamic temperature	kelvin	K
Luminous intensity	candela	cd
Amount of substance	mole	mol

Supplementary Units

<i>Quantity</i>	<i>Unit</i>	<i>Symbol</i>
Plane angle	radian	rad
Solid angle	steradian	sr

Derived Units

<i>Quantity</i>	<i>Unit</i>	<i>Symbol</i>	<i>Definition</i>
Force	newton	N	1 N = 1 kg. m/s ²
Energy	joule	J	1 J = 1 N.m
Power	watt	W	1 W = 1 J/s
Flux	weber	Wb	1 Wb = 1 V.s
Flux density	tesla	T	1 T = 1 Wb/m ²
Frequency	hertz	Hz	1 Hz = 1 c/s (s ⁻¹)
Electric conductance	siemens	S	1 S = 1 A/V
Electromotive force	volt	V	1 V = 1 W/A
Pressure, stress	pascal	Pa	1 Pa = 1 N/m ²